

Presentation

on

Cost of sales, accruals and inventories (Chapter-7)

Accruals and prepayments (Chapter-9)

Md. Main Uddin FCA, ACS

Cost of sales

Opening inventory + purchases + carriage inwards – closing inventory = cost of sales. This amount is then deducted from revenue to arise at the business's gross profit.

Opening inventory value	X
Add cost of purchases (or, in the case of a manufacturing company, the cost of production)	X
Add cost of carriage inwards	X
Less closing inventory value	(X)
Equals cost of sales	<u>X</u>

Carriage inwards and outwards

'Carriage' refers to the **cost of transporting purchased goods** from the supplier to the premises of the business which has bought them. Someone has to pay for these delivery costs: sometimes the supplier pays (in which case the purchaser has no costs to record) and sometimes the purchaser pays. When the purchaser pays, the cost to the purchaser is **carriage inwards** when the goods are coming into the business, and **carriage outwards** when the goods are going **out** of the business.

- ❑ The **cost of carriage inwards** is added to the **cost of purchases**, and is therefore included in the calculation of cost of sales and gross profit.
- ❑ The **cost of carriage outwards** is a distribution cost deducted from gross profit in the **income statement**.

- ✓ On 1 January 20X6, Grand Union Food Stores had goods in inventory valued at CU6,000. During 20X6 its proprietor purchased supplies costing CU50,000. Sales for the year to 31 December 20X6 amounted to CU80,000. The cost of goods in inventory at 31 December 20X6 was CU12,500.

Requirement

Calculate the business's gross profit for the year.

36,500

Inventory written off or written down

A trader might be unable to sell all the goods purchased, because before they can be sold, they might:

- Be lost or stolen
- Be damaged and become worthless
- Become obsolete or out of fashion. These might be thrown away or sold off at a low price.

When goods are lost, stolen or thrown away as worthless, the business will make a loss on those goods because their 'sales value' will be nil.

If, at the end of an accounting period, a business still has goods in inventory which are either worthless or worth less than their original cost, the value of the **inventories should be written down** to:

- **Nothing, if they are worthless, or**
- **Their net realisable value (NRV) if this is less than their original cost.**

The cost of inventory written off or written down does not usually cause any problems in calculating the gross profit of a business, because the cost of sales already includes the cost of inventories written off or written down

Inventory written off or written down

- ✓ Lucas Wagg ends his financial year on 31 March. At 1 April 20X5 he had goods in inventory valued at CU8,800. During the year to 31 March 20X6, he purchased goods costing CU48,000. Fashion goods which cost CU2,100 were held in inventory at 31 March 20X6, and Lucas Wagg believes that these can only now be sold at a sale price of CU400. Goods still held in inventory at 31 March 20X6 (including the fashion goods) had an original purchase cost of CU7,600. Sales for the year were CU81,400.

Requirement

Calculate Lucas Wagg's gross profit for the year ended 31 March 20X6.

30,500

Inventory destroyed or stolen and subject to an insurance claim

Where a **material** amount of inventory has been stolen or destroyed, including their cost in gross profit will give a very distorted idea of the business's basic profitability:

- Purchases will include the cost of goods that could not be sold, so the accrual principle is broken, yet they are not in closing inventory either, so it will look as if the business's gross margin on sales has fallen catastrophically.
- There may be an amount of income as a result of an insurance claim, which cannot be included in cost of sales under the 'no offsetting' principle.

These problems are overcome by taking the cost of goods stolen or destroyed **out of purchases**, and including it under **expenses**. The insurance claim is treated as **other income** in calculating net profit; if it has not yet been received in the form of **cash** it is disclosed as '**other receivables**' on the statement of financial position.

Inventory destroyed or stolen and subject to an insurance claim

✓ ABC had CU15,000 of inventory as at 1 January 20X2. During the year she purchased inventory for CU98,000, incurring carriage inwards of CU150. She made sales of CU150,000, incurring delivery costs to her customers of CU2,400. At 31 December 20X2 she realises that she has inventory costing only CU200 left; goods costing CU18,000 have been stolen. The insurance company has agreed to pay her claim for 75% of the cost.

Requirements: ABC's income statement on

- (a) the basis of charging on expenses, and compare this with
- (b) the alternative way to charge in cogs.

International Accounting Standard 2 Inventories

The objective of this Standard is to prescribe the accounting treatment for inventories. This Standard provides guidance on the **determination of cost** and its subsequent recognition as an expense, including any write- down to **net realisable value**. It also provides guidance on the cost formulas that are used to assign costs to inventories.

This Standard applies to all inventories, except:

- Work in progress under construction contracts;
- financial instruments (see IAS 32 Financial Instruments: Presentation and IFRS 9 Financial Instruments); and
- biological assets related to agricultural activity and agricultural produce at the point of harvest (see IAS 41 Agriculture)

International Accounting Standard 2 Inventories

Inventories are assets:

- (a) held for sale in the ordinary course of business;
- (b) in the process of production for such sale; or
- (c) in the form of materials or supplies to be consumed in the production process or in the rendering of services.

Inventories can include:

- Goods purchased and held for resale
- Finished goods
- Work in progress being produced
- Raw materials awaiting use

Accounting for opening and closing inventories

- ✓ Purchases are introduced to the profit and loss ledger account via the following double entry:

DEBIT	Profit and loss ledger account	CUX	
CREDIT	Purchases account		CUX

- ✓ Once an inventory count is made and the business has a value for its closing inventory, the double entry is:

DEBIT	Inventory (asset) account	CUX	
CREDIT	Profit and loss ledger account		CUX

- ✓ Closing inventory at the end of one period becomes opening inventory at the start of the next period. The inventory account remains unchanged, with a debit balance until the end of the next period. This value is now the opening inventory figure and is taken to the profit and loss ledger account:

DEBIT	Profit and loss ledger account	CUX
CREDIT	Inventory (opening inventory value) account	CUX

Counting and Valuing inventories

- ✓ The inventory count establishes quantities held in inventory at the year end.
- ✓ Inventory is valued at the lower of (historical) cost of purchase, and net realisable value (NRV).
- ✓ NRV is the expected selling price less any costs to be incurred in achieving that sale.
- ✓ Cost comprises: purchase price, carriage, duties and conversion costs to bring item to its present location and condition.
- ✓ There are several methods which, in theory, might be used for valuing items of inventory:
 - ✓ At their historical cost (i.e. the cost at which they were originally bought)
 - ✓ At their expected selling price
 - ✓ At their expected selling price, less any costs still to be incurred in getting them ready for sale. This amount is referred to as inventory's net realisable value (NRV).
 - ✓ At the amount it would cost to replace them (replacement cost).

Case-1:

The following figures relate to inventory held at the year end.

	Item A	Item B	Item C
Cost	CU20	CU9	CU14
Selling price	CU30	CU12	CU22
Modification cost to enable sale	—	CU2	CU8
Marketing costs	CU7	CU2	CU2
Units held	200	150	300

$$\begin{array}{r} 20/23 * 200 = 4000 \\ 9/8 * 150 = 1200 \\ \hline 14/12 * 300 = 3600 \\ \hline 8800 \end{array}$$

Requirement

Calculate the value of inventory for inclusion in the financial statements.

Determining the cost of inventory

Cost of inventories: All costs of purchase, of conversion (e.g. labour) and of other costs incurred in bringing the items to their present location and condition.

Cost of purchase: The purchase price, import duties and other non-recoverable taxes, transport, handling and other costs directly attributable to the acquisition of finished goods and materials.

What is included in the total cost of an item?

The total cost of an item includes all costs incurred in bringing the item to its present location and condition. This consists of

- ✓ The purchase cost of raw materials
- ✓ Carriage
- ✓ Import taxes and duties
- ✓ Conversion costs

Conversion costs: Any costs involved in converting raw materials into final product, including labour, expenses directly related to the product and an appropriate share of production overheads (but not sales, administrative or general overheads).

Techniques to attribute a cost to inventory items

- ✓ **FIFO (first in, first out):** Items are used in the order in which they are received from suppliers, so oldest items are issued first. Inventory remaining is therefore the newer items.
- ✓ **LIFO (last in, first out):** Items issued originally formed part of the most recent delivery, while oldest consignments remain in the bin. **This is disallowed under IASs.**
- ✓ **AVCO (average cost):** As purchase prices can change with each new consignment received, the average value of an item is constantly changing. Each item at any moment is assumed to have been purchased at the average price of all the items together, so inventory remaining is therefore valued at the most recent average price.
- ✓ **Standard cost:** All inventory items are valued at a pre-determined cost. If this standard cost differs from prices actually paid during the period the difference is written off as a 'variance' in the income statement.
- ✓ **Replacement cost:** The cost of an inventory unit is assumed to be the amount it would cost now to replace it. This is often (but not necessarily) the unit cost of inventories purchased in the next consignment following the balance sheet date.

Case-2:

A business has the following details relating to production and sales for a year:

Sales: 900 units at CU600 each

1,000 units are produced with the following costs being incurred:

Opening inventory of raw materials: 200 units at CU100 each

Purchases of raw materials: 1,050 units at CU100 each

Closing inventory of raw materials: 250 units at CU100 each

Production wages	CU150,000
------------------	-----------

Production overhead	CU100,000
---------------------	-----------

General administration, selling and distribution costs	CU100,000
--	-----------

Requirements:

1. Closing inventory, finished goods

2. Net profit

Case-3:

A firm has the following transactions with respect to its product R.

Opening inventory: nil

Buys 10 units at CU300 per unit

Buys 12 units at CU250 per unit

Sells 8 units at CU400 per unit

Buys 6 units at CU200 per unit

Sells 12 units at CU400 per unit

Requirement Using FIFO & AVCO, calculate the following on an item by item basis

1. Closing inventory
2. Sales
3. Cost of sales
4. Gross profit

Using mark-up/margin percentages to establish cost

- Mark-up is calculated on cost.
- Margin is calculated on sales.
- Margin and mark-up can help us to establish the cost of an item of inventory.

It is common to establish standard gross profit percentages in relation to cost to set the sales price:

- ✓ Inventory that cost CU120 may be sold at a margin of 40%, so the sales value is $\text{CU}120 \times 100/60 = \text{CU}200$, and the profit is $\text{CU}120 \times 40/60 = \text{CU}80$
- ✓ Inventory that cost CU120 may be sold at a mark-up of 40% to reach a sales price of CU168 ($120 \times 140/100$)

Case-4:

A business has valued its inventory at CU1,000, being the selling price of the items.

Requirement

What is the cost of closing inventory at cost assuming the business operates:

(a) On a margin of 25%?

(b) On a mark-up of 25%

(a)	%	CU
Sales	100	1,000
COS	<u>(75)</u>	<u>(750)</u> $1,000 \times 75/100$
GP	<u>25</u>	<u>250</u>

Inventory should be valued at CU750 when a margin of 25% operates.

(b)	%	CU
Sales	125	1,000
COS	<u>(100)</u>	<u>(800)</u> $1,000 \times 100/125$
GP	<u>25</u>	<u>200</u>

Inventory should be valued at CU800 when a mark-up of 25% operates.

The principle behind accruals and prepayments

Both accruals and prepayments are usually included as current liabilities/assets as they nearly always clear very soon after the year-end.

Accruals (accrued expenses): Expenses which are charged against the profit for a particular period, even though they have not yet been paid for.

Prepayments (prepaid expenses): Expenses which have been paid in one accounting period, but are not charged against profit until a later period, because they relate to that later period.

Reversing accruals and prepayments in new period

Prepayments and accruals must be reversed by an opening journal in the new period, otherwise the entity will charge itself twice for the same expense (accruals) or will never charge itself (prepayments).

- ✓ ABC is a business dealing in pest control. Its owner, Roy Dent, employs a team of **eight people** who were paid CU12,000 per annum each in the year to 31 December 20X5. At the start of 20X6 he raised salaries by 10% to CU13,200 per annum each.

On 1 July 20X6, he hired a trainee at a salary of CU8,400 per annum.

He pays his work force on the first working day of every month, one month in arrears, so that his employees receive their salary for January on the first working day in February, etc.

Requirements

- (a) Calculate the cost of salaries charged in ABC's income statement for the year ended 31 December 20X6.
- (b) Calculate the amount actually paid in salaries during the year (i.e. the amount of cash received by the work force).
- (c) State the amount of the accrual for salaries which will appear in ABC's statement of financial position as at 31 December 20X6.

- a. 109,800
- b. 108,300
- c. 9,500

- ✓ABC has posted CU10,500 from its purchases day book to its administrative expenses ledger account during 20X2, and CU250 direct from its cash book. At 31 December 20X2 the business estimates that the year-end accrual should be CU100 less than the accrual brought forward, and the prepayment should be CU150 less.

Requirement

What is the total cost of administrative expenses in the year ended 31 December 20X2?

10,800

☐ How is the cost of sales calculated?

☐ Distinguish between carriage inwards and carriage outwards.

☐ Cost of sales is CU14,000. Purchases for the period are CU14,000, carriage inwards is CU1,000, carriage outwards is CU1,500 and closing inventory is CU13,000. What was the opening inventory figure?

A CU10,500

B CU11,500

C CU12,000

D CU13,000

☐ Give three reasons why goods purchased might have to be written off.

☐ If a business has paid property tax of CU1,000 for the year to 31 March 20X9, what is the prepayment in the financial statements for the year to 31 December 20X8?

☐ Rupa has the following balances in her accounts.

	<u>CU</u>
Purchases	75,000
Carriage outwards	800
Carriage inwards	1,000
Discounts received	2,000
Opening inventory	10,000
Closing inventory	12,000

What is Rupa's cost of sales?

- A CU72,000
- B CU73,000
- C CU74,000
- D CU74,800

☐ On 5 May 20X8 Portals pays a rent bill of CU1,800 for the eighteen months ended 30 June 20X9. What is the charge in the income statement and the balance sheet entry for rent in respect of the year ended 31 March 20X9?

- A CU1,200 with prepayment of CU300
- B CU1,200 with accrual of CU600
- C CU1,500 with accrual of CU300
- D CU1,500 with prepayment of CU300

☐ At the beginning of September Barney & Co were owed CU200 in rent. At the end of September they were owed CU400. CU800 cash for rent was received during September. What entry will be made in the income statement for September for rent receivable?

- A. Debit CU600
- B. Debit CU1,000
- C. Credit CU600
- D. Credit CU1,000

☐ Which of the following is the correct calculation for cost of sales?

- A. Sales – purchases
- B. Opening inventory + purchases + closing inventory + carriage inwards
- C. Opening inventory + purchases - closing inventory + carriage inwards
- D. Sales – opening inventory – purchases + closing inventory – carriage inwards

☐ A firm made the following rent payments.

CU9,000 for the six months ended 31 March 20X6

CU12,000 for the six months ended 30 September 20X6

CU11,196 for the year ended 30 September 20X7

The charge to the income statement for the year ended 31 December 20X6 was

A CU13,299

B CU19,299

C CU24,897

D CU22,098

☐ Elizabeth paid CU2,500 for gas during the year. At the beginning of the year she owed CU500; at the end she owed CU1,000. What charge should have appeared in her income statement for that year?

A CU2,000

B CU2,500

C CU3,000

D CU3,500

☐ Carlisle has the following inventory movements during May.

	Unit	BDT per unit
Opening inventory	40	9
02 May goods in	60	10
10 May Goods out	50	
15 May Goods in	70	11
18 May Goods out	45	
24 May Goods in	80	11

Assuming that the business values inventory on a FIFO basis, what will be the value of closing inventory at the end of the month?

- A) 1615
- B) 1655
- C) 1700
- D) 1705

☐ What would be the effect on a business's profit of discovering that inventory with a cost of Tk1250 and a NRV of Tk1000 had been omitted from the inventory count at the end of the reporting period?

- A) An increase of Tk1250
- B) An increase of Tk1000
- C) A decrease of Tk200
- D) No effect

*Thank
you*

